

Los Alamos National Laboratory Technical Area 54 Part B Permit Renewal Application

Revision 3.0

Prepared by:

*Los Alamos National Laboratory
Risk Reduction and Environmental Stewardship Division
Solid Waste Regulatory Compliance Group (RRES-SWRC)
Los Alamos, New Mexico 87545*

**Los Alamos National Laboratory
Technical Area 54
Part B Permit Renewal Application**

Revision 3.0

**LA-UR-03-3579
June 2003**

Prepared by:
Los Alamos National Laboratory
Risk Reduction and Environmental Stewardship Division
Solid Waste Regulatory Compliance Group (RRES-SWRC)
Los Alamos, New Mexico 87545

TABLE OF CONTENTS

LIST OF TABLES.....	ii
LIST OF FIGURES	iii
LIST OF ATTACHMENTS.....	iv
LIST OF SUPPLEMENTS.....	v
LIST OF ABBREVIATIONS/ACRONYMS.....	vi
1.0 INTRODUCTION.....	1-1
2.0 CONTAINER STORAGE	2-1
2.1 TA-54 CONTAINER STORAGE UNITS	2-1
2.1.1 Area L.....	2-1
2.1.1.1 Area L CSUs and Capacities	2-1
2.1.1.2 Storage Containers	2-2
2.1.1.3 Minimum Aisle Space and Storage Configuration.....	2-3
2.1.2 Area G	2-3
2.1.2.1 Area G CSUs and Capacities.....	2-4
2.1.2.2 Storage Containers	2-4
2.1.2.3 Minimum Aisle Space and Storage Configuration.....	2-5
2.1.3 TA-54 West.....	2-6
2.1.3.1 TA-54 West CSUs and Capacities	2-6
2.1.3.2 Storage Containers	2-6
2.1.3.3 Minimum Aisle Space and Storage Configuration.....	2-7
2.2 AUTHORIZED WASTE IDENTIFICATION	2-8
2.3 TYPES AND CONDITION OF CONTAINERS	2-8
2.4 COMPATIBILITY OF WASTE WITH CONTAINERS	2-10
2.5 MANAGEMENT OF CONTAINERS	2-11
2.6 CONTAINMENT SYSTEMS	2-11
2.7 INSPECTION SCHEDULES AND PROCEDURES	2-12
2.8 SPECIAL REQUIREMENTS FOR IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE	2-12
2.9 CLOSURE	2-13
2.10 CONTROL OF RUN-ON AND RUNOFF	2-14
2.10.1 Area L.....	2-14
2.10.2 Area G	2-14
2.10.3 TA-54 West.....	2-14
3.0 OTHER FEDERAL LAWS.....	3-1
4.0 CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS	4-1
5.0 CERTIFICATION.....	5-1
6.0 REFERENCES.....	6-1

LIST OF TABLES

<u>TABLE NO.</u>	<u>TITLE</u>
1-1	Regulatory References and Corresponding Permit Renewal Application Location
2-1	Maximum Storage Capacity and Total Storage Area at the Area L Container Storage Units
2-2	Storage Containers Used for Hazardous and Mixed Low-Level Waste
2-3	Maximum Storage Capacity and Total Storage Area at the Area G Container Storage Units
2-4	Storage Containers Used at the Area G Container Storage Units for Mixed Transuranic Waste Awaiting Processing, Characterization, and Transport to the Waste Isolation Pilot Plant (WIPP) and Authorized for Receipt at WIPP
2-5	Storage Capacity and Total Storage Area at the TA-54 West Container Storage Units
4-1	Technical Area (TA) 54 Solid Waste Management Units (SWMU)

LIST OF FIGURES

<u>FIGURE NO.</u>	<u>TITLE</u>
2-1	Area L Container Storage Units
2-2	Storage Configuration and Capacity for the Aboveground Container Storage Unit Within the Fence at Area L
2-3	Area G Container Storage Units
2-4	TA-54-229, -230, -231, and -232 Container Storage Unit Configuration and Capacity
2-5	Examples of Dome Storage Configurations Based on Waste Container Type
2-6	TA-54-226 and -412 Container Storage Unit Configuration and Capacity
2-7	TA-54-48 Container Storage Unit Configuration and Capacity
2-8	Proposed Transuranic Waste Characterization Facilities and Pad 10 Container Storage Unit Configuration and Capacity
2-9	TA-54-49, -144, -145, -146, -177, -224, -1027, -1028, -1030, and -1041 Container Storage Unit Configuration and Capacity
2-10	TA-54-153 and -283 Container Storage Unit Configuration and Capacity
2-11	TA-54-8 Container Storage Unit Configuration and Capacity
2-12	TA-54-33 Container Storage Unit Configuration and Capacity
2-13	TA-54-375 Container Storage Unit Configuration and Capacity
2-14	TA-54 West Container Storage Units
2-15	TA-54 West Container Storage Units Configuration and Capacity

LIST OF ATTACHMENTS

<u>ATTACHMENT</u>	<u>TITLE</u>
A	Facility Description
B	Waste Analysis Plan
C	Inspection Plan
D	Personnel Training Plan
E	Contingency Plan
F	Closure Plan for Technical Area 54 Container Storage Units
G	Container Management
H	Closure/Post-Closure Plan for the Technical Area 54 Area L Landfill (Shafts 1, 13-17, and 19-34 and Impoundments B and D)
I	Closure/Post-Closure Plan for the Technical Area 54 Area G Landfills (Pit 29 and Shaft 124)
J	Compliance Demonstration with 40 CFR 264, Subparts G and F under Corrective Action Procedures for Material Disposal Area H at Technical Area 54

LIST OF SUPPLEMENTS

<u>SUPPLEMENT</u>	<u>TITLE</u>
2-1	Secondary Containment Capacities
4-1	Solid Waste Management Units at Technical Area 54: Information Extracted from "The 2003 Solid Waste Management Unit Report"—LA-UR-03-6000

LIST OF ABBREVIATIONS/ACRONYMS

20.4.1 NMAC	New Mexico Administrative Code, Title 20, Chapter 4, Part 1
CFR	Code of Federal Regulations
CSU	container storage unit
DOT	Department of Transportation
FRP	fiberglass-reinforced plywood
ft	foot/feet
ft ³	cubic feet
HRMB	Hazardous and Radioactive Materials Bureau
LANL	Los Alamos National Laboratory
MLLW	mixed low-level waste
MTRUW	mixed transuranic waste
NMED	New Mexico Environment Department
RANT	Radioassay and Nondestructive Testing Facility
RTR	real-time radiography
SWB	standard waste box
SWMU	solid waste management unit
TA	Technical Area
TDOP	ten drum overpack
TRU	transuranic
TRUPACT-II	Transuranic Package Transporter-II
WIPP	Waste Isolation Pilot Plant
yd ³	cubic yard(s)